

NOTE: This Chapter should not be read in isolation. You may need to consider other chapters of this DCP when preparing your application.



## CHAPTER NB2: WORRIGEE URBAN RELEASE AREA



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### Amendment history

Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1	1 March 2016	5 August 2016	New
2			

## 1 Purpose

The purpose of this chapter is to guide the development of the Worrigeer Urban Release Area (URA) to facilitate large lot residential development that compliments the surrounding natural environment, large lot residential development and rural edge setting.

## 2 Application

This chapter applies to the Worrigeer URA as shown in Figure 1, which is located approximately 8 km south east of Nowra CBD.

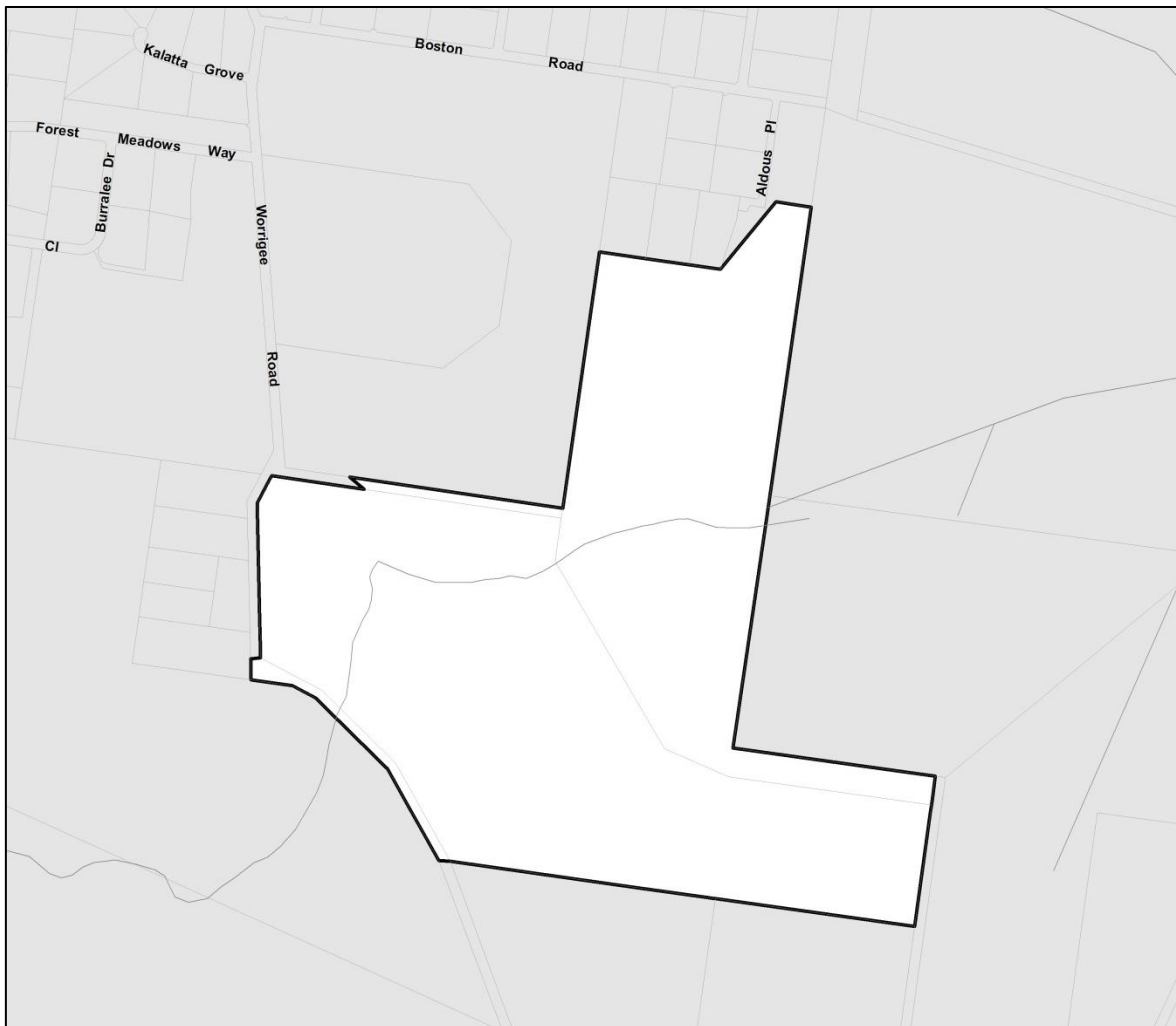


Figure 1: Subject Land Map

## 3 Context

The Worrigeer URA was initially identified as a possible Urban Release Area in the *Nowra-Bomaderry Structure Plan* that was adopted by Council in October 2006 and endorsed by the State Government in early 2008. The commencement of Shoalhaven Local Environmental Plan (SLEP) 2014 zoned the majority of the URA for urban development.

The URA adjoins existing large lot residential development and the Shoalhaven Memorial Gardens & Lawn Cemetery on its northern and western boundaries (part). The southern, and eastern boundaries, and part of the western boundary are forested and predominately NSW National Parks land. The residential zone boundaries are influenced by high hazard flood areas within the site. Future subdivisions need to be designed to enable dwellings to be located outside the high hazard flood area.

## **4 Controls**

### **4.1 Desired Character**

The Worrigeer URA will be developed as an attractive, large lot residential area that complements the surrounding natural environment, existing development and rural edge setting.

Large areas within the URA have been cleared or disturbed by past use as a golf course, or as a result of agricultural use. The future use of the URA provides an opportunity for large lot residential development that protects remaining remnant vegetation areas on the site.

The objectives are to:

- i. Create an attractive and desirable residential living area within a natural environment / rural setting that offers a choice of quality housing outcomes.
- ii. Ensure that subdivision layouts capitalise on the natural environment / rural setting and respond adequately to the known environmental constraints.
- iii. Enhance community interaction by providing outdoor recreation opportunities.

<b>Performance Criteria</b>	<b>Acceptable Solutions</b>
P1 Subdivision design creates an attractive and desirable residential living area with opportunities for short and long distance views.	<p>A1.1 Design of road/street patterns to create view corridors to the surrounding natural environment and rural setting.</p> <p>A1.2 Subdivision layout encourages passive surveillance and use of roads and public areas.</p> <p>A1.3 Subdivision layout encourages a variety of primarily single storey dwelling designs.</p>
P2 Provide for local roads and public spaces that contribute to the liveability of the area.	A2.1 Local roads provide opportunities for passive recreation activities (i.e. bike riding and walking).
P3 Subdivision layouts provide for water harvesting and solar access.	<p>A3.1 Water harvesting to be built into subdivision design.</p> <p>A3.2 The subdivision design maximises the number of north-south orientated lots.</p>

## 4.2 Traffic Movement

Traffic movements to and from the Worrigeer URA is influenced by its location at the southern end of Worrigeer Road and Aldous Place. Subdivision applications will need to demonstrate how traffic movements will occur and how egress will occur during a potential natural hazard event (specifically bushfire or flood).

The objectives are to:

- i. Ensure the traffic networks allow effective movement to and from the site for vehicles (including buses, trucks & emergency vehicles), pedestrians and cyclists.
- ii. Encourage cycling, walking and the use of public transport.
- iii. Ensure traffic egress options exist during a potential natural hazard event (specifically bushfire or flood).

<b>Performance Criteria</b>	<b>Acceptable Solutions</b>
P4 Internal road networks allow for effective movement of vehicles including trucks and buses.	A4.1 Subdivision applications must identify and provide for entry point roads, collector roads, perimeter roads and emergency egress roads.
P5 Internal road networks provide opportunities for cycle/pedestrian usage.	<p>A5.1 Traffic treatments encourage non-motorised transport options.</p> <p>A5.2 Subdivisions provide for legible cycle/pedestrian access to the adjacent National Park.</p> <p>A5.3 Subdivision layouts demonstrate an ability to connect to future cycling routes identified in the Shoalhaven Bike Plan where possible.</p>
P6 Subdivision layouts provide egress road options for use during a natural hazard event (specifically bushfire or flood).	A6.1 Two (2) egress points are to be provided from the site at Worrigeer Road and Aldous Place.

## 4.3 Natural Environment

An environmental management plan is required to support any subdivision application over the subject land. The environmental management plan is to address any protection or rehabilitation works associated with threatened fauna and flora species, in particular, the Green and Golden Bell Frog. This plan will need to cover mitigation measures required during construction as well as detailing the protection / rehabilitation measures required for long term management of particular land. The majority of any protection or rehabilitation works would need to be completed prior to any agreement to transfer any natural area into public ownership.

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Section 5A of the Environmental Planning and Assessment Act 1979 sets out a 'seven-part test' for considering the potential impact of a proposed development on critical habitat, threatened species, populations or endangered ecological communities, and their habitats. As development of URA land will potentially impact on known threatened species habitat, an assessment known as a 'seven-part test' will be legally required as part of the development assessment process. A Species Impact Statement will need to be prepared if the seven-part test concludes that there is likely to be a significant impact.

The protection of threatened species and/or significant natural areas outside the boundary of the URA may require the provision of a fence, vehicle prevention treatments and/or vehicle gates to prevent degradation of these areas. These treatments will need to be detailed in any subdivision application.

<b>Performance Criteria</b>		<b>Acceptable Solutions</b>	
P7	Development of the URA is to ensure that threatened species and their habitats are retained.	A7.1	Hollow bearing trees and other identified habitat resources are to be protected and retained.
P8	Vegetation to be retained is protected from damage during any construction activities.	A8.1	Trees and vegetation to be retained is clearly mapped on site plans and protected in accordance with Australian Standard for Protection of trees on development sites (AS4970).
		A8.2	Building material and other items are not stockpiled within the root zones of any trees and vegetation to be retained.
P9	Development of the URA is to provide for the protection of the adjacent National Parks and natural areas.	A9.1	Where appropriate, provide boundary fencing, vehicle prevention treatments and/or vehicle gates to protect adjacent threatened species and natural areas.
P10	Provide for the appropriate management of land zoned E2 Environmental Conservation and E3 Environmental Management.	A10.1	Subdivision applications must be supported by Management Plans for all land zoned E2 and E3.
		A10.2	Management Plans must identify future landowners responsible for the management of land zoned E2 and E3.
P11	Provide for the protection and improvements to riparian corridors.	A11.1	Riparian corridors to be improved through maintenance programs to remove weed species and to enhance bank stability and water quality.

#### 4.4 Bushfire Protection

The URA is partly surrounded by bushfire prone land and as a result, bushfire is a potential threat to development on the site. As a result, development will need to consider the bushfire planning requirements detailed in the NSW Rural Fire Services' *Planning for Bushfire Protection Guidelines* (PBP) and the Australian Standard for *Construction of buildings in bushfire prone areas* (AS3959) (or equivalent documents).

PBP states that a perimeter road is generally required to separate residential development from adjacent bushland areas and allow easy access to defend properties and manage the adjoining bushfire hazard. Dead end roads are not recommended and should be less than 200 metres long.

The objectives are to:

- i. Ensure that appropriate bushfire assessment and mitigation measures are undertaken or provided when developing the Worrigee URA.
- ii. Ensure that occupants can leave, and firefighters / rescuers can access the properties via a road network safely in an emergency situation.
- iii. Reduce the potential that development will be isolated in a bushfire emergency.

##### 4.4.1 Mandatory controls

1. Subdivision and development applications must demonstrate how they comply with the *Planning for Bushfire Protection Guidelines*.
2. All weather sealed perimeter roads must be included in any subdivision application where residential development adjoins unmanaged forest vegetation.
3. When staging development of the URA, each stage released must have in place adequate asset protection zones (APZs), emergency access / egress and water supply.

##### 4.4.2 Controls

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Performance Criteria	Acceptable Solutions
P12 Development of the site designed to minimise bushfire risk.	A12.1 Design and construction of dwellings and other structures to the required standard under AS3959. A12.2 Where a perimeter road is not provided, fire fighting vehicles must be able to access and safely defend all sides of a dwelling (incorporating a minimum area of 12 metres outer radius around a dwelling). A12.3 Provision of an adequate dedicated water supply for firefighting purposes.

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	<p>A12.4 Landscaping measures should limit the spread of fire.</p> <p>A12.5 Subdivision applications should be supported by an emergency management plan for the protection of property and/or evacuation.</p>
	<p><b>Note:</b> The width of APZ depends on a number of factors including the slope of the land, the type of vegetation and the construction standard of the building.</p>
P13 All APZs are to be maintained in perpetuity by individual property owners.	<p>A13.1 APZs are contained within each associated private property boundary.</p> <p>A13.2 Building envelopes identified that demonstrate compliance with the Planning for Bushfire Protection Guidelines.</p>
P14 Public roads are to provide safe all-weather access for firefighters and residents evacuating the URA.	<p>A14.1 Avoid dead end roads more than 200 metres in length.</p> <p>A14.2 Truck turning areas must be provided at the end of all dead end roads / streets.</p> <p>A14.3 One way only roads have a minimal trafficable width of 4 metres wide.</p> <p>A14.4 Minimum vertical clearance of 4 metres to any overhanging obstructions above a road.</p> <p>A14.5 Perimeter roads to be linked to the internal road system at intervals no greater than 500 metres</p>
P15 Driveway entrances to private properties accommodate category 1 firefighting vehicles and enable completion of a three-point vehicle turn by these vehicles.	A15.1 Driveways to private properties are designed in accordance with the splayed driveway specifications for fire fighting vehicles provided in Figure 2.
P16 Environmental attributes within APZs are appropriately managed.	A16.1 Important habitat trees or threatened species within the APZs are retained and managed in accordance with the RFS's standards for APZ management.



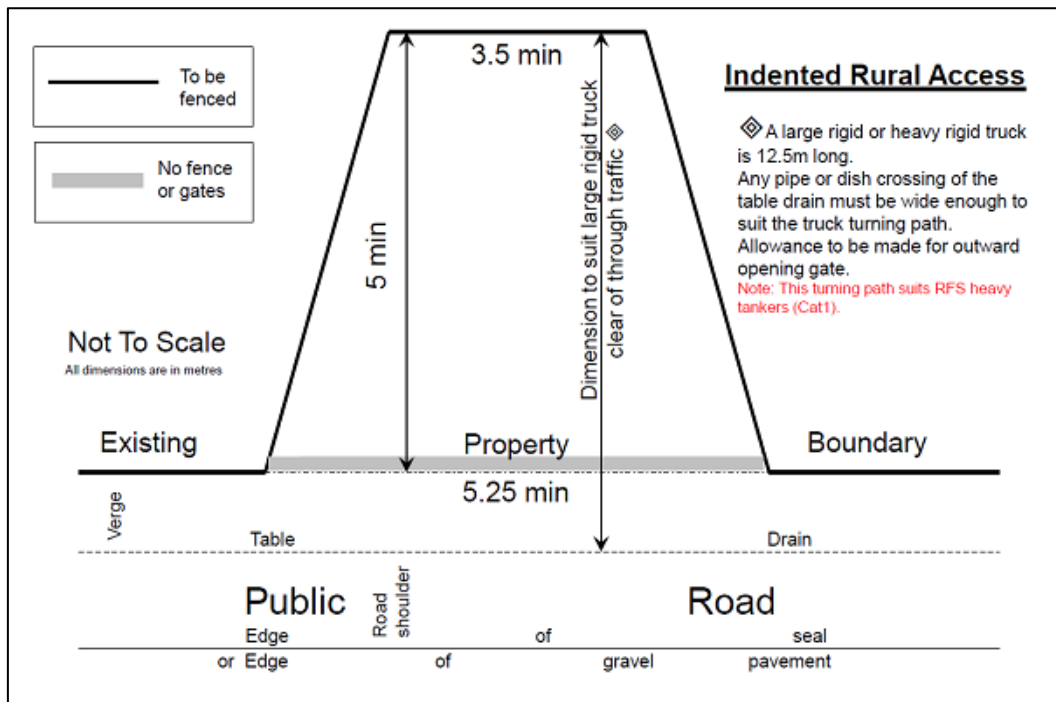


Figure 2: Splayed driveway specifications for fire fighting vehicles

## 4.5 Flood Minimisation

Flood studies covering the Worrige URA have identified areas that are flood affected and/or isolated in a flood event. In particular, backwater flooding from the Shoalhaven River will extend upstream and into low lying areas of the site including those that adjoin Rotten Creek and the Unnamed Creek that drains to Rotten Creek. There is also potential for flooding of Rotten Creek and the Unnamed Creek from their respective catchments.

The objectives are to:

- i. Ensure that development does not increase the potential flood risks to people property and the environment.
- ii. Ensure that development does not increase flood risk on existing or adjoining properties.
- iii. Ensure that provisions are made within development to safely evacuate flood affected residents if required.

### 4.5.1 Mandatory controls

1. Any development over land identified as “Flood Planning Area” under Shoalhaven LEP 2014 must meet the requirements of Clause 7.3 in the LEP and Chapter G9: Development of Flood Prone Land.
2. Subdivision design must allow for all dwellings to be located outside of the “High Hazard” flood areas.
3. No dwellings are permitted within any “High Hazard” flood areas.

4. A flood impact assessment and detailed hydrodynamic investigation is required to support any subdivision application over land affected by Clause 7.3 in Shoalhaven LEP 2014.
5. A flood free access road is to be provided as part of any subdivision application over the land, to allow for the safe evacuation of residents in case of a flood event.

#### **4.6 Stormwater Management**

The objectives are to:

- i. Minimise any impacts on natural watercourses and their associated ecosystems during stormwater events.
- ii. Avoid stormwater discharge into adjoining National Parks land.
- iii. Maintain and/or rehabilitate modified watercourses and their associated ecosystems.
- iv. Encourage the reuse of stormwater generated by development.
- v. Achieve a neutral or reduced post development stormwater sedimentation and pollutant load when compared to predevelopment conditions.
- vi. Minimise impact from stormwater on all existing and future development within and surrounding the URA.

<b>Performance Criteria</b>	<b>Acceptable Solutions</b>
P17 Development of the site results in neutral or improved benefit from stormwater discharged into natural watercourses.	<p>A17.1 A Stormwater Assessment must be submitted that demonstrates compliance with Water Sensitive Urban Design principles (including on-site stormwater detention).</p> <p>A17.2 A Stormwater Management Plan is required for any significant on-site stormwater detention facilities.</p> <p>A17.3 Stormwater discharge designed to maintain predevelopment water quality (i.e. average sediment and nutrient loads).</p>
P18 Stormwater outlets engineered to mimic predevelopment flow conditions.	<p>A18.1 Stormwater outlets include an appropriate flow spreader/ energy dissipater to replicate predevelopment flow conditions.</p> <p>A18.2 Stormwater outlets have nominal setback (i.e. 20m) established between site stormwater outlets and areas of sensitive vegetation.</p>
P19 Stormwater reuse to provide an alternative water supply.	A19.1 Stormwater is harvested onsite for use during dry periods and for potential bushfire fighting purposes.

## 5 Advisory Information

### 5.1 Other legislation you may need to check

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**Council Policies & Guidelines**     • Nil

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**External Policies & Guidelines**     • Planning for Bushfire Protection Guidelines

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**Legislation**     • Environmental Planning and Assessment Act 1979  
                           • Rural Fires Act 1997

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